VERKLOV, B.A., inzh.

"Ural-33" coal cutter. Ugol' Ukr. 5 no.4:37-38 Ap '61.
(MIRA 14:4)

(Coal mining machinery)

PONOMARENKO, V.A., kand. tekhn. nauk; KRAVCHINSKIY, S.Yu.;
VERKLOV, B.A., kand. tekhn. nauk; LYSYUK, V.S., inzh.

Establishing an optimumchart for underground mine haulage by the electron modeling method. Ugol' Ukr. 9 no.12:19-21 D '65. (MIRA 19:1)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Ponomarenko, Kravchinskiy). 2. Kommunarskiy gornometallurgicheskiy institut (for Verklov, Lysyuk).

VERKLOV, B.A., inzh.

Determining friction losses in case of prepole transmission of internal engagement. Vest.mash. 41 no.8:11-14 Ag '61. (MIRA 14:8)

(Gearing)

PETRENKO, P.V.; EL'KIN, I.L.; KAZAKOV, S.S.; VOZHIK, D.L.; DENISOV, V.V.; PUCHKOV, V.I.; BOGUTSKIY, N.V.; SAVEL'YEV, I.P.; KOLENTSEV, M.T.; MERKULOV, N.Ya.; VERKLOV, V.A.; OVSYANNIKOV, P.A.; SOSNOV, V.D., otv. red.; CHIZHOVA, V.V., otv.red.; ZHUKOVA, A.P., red.; LEVINA, T.I., red.; PRONINA, N.D., tekhn. red.; OVSEYENKO, V.G., tekhn. red.

[Practice of using cutterloaders]Opyt ispol'zovaniia ochistnykh kombainov; sbornik statei. Moskva, 1962. 102 p. (MIRA 16:2)

1. TSentral'nyy institut tekhnicheskoy informatsii ugol'noy promyshlennosti.

(Coal mining machinery)

USSR/Microbiology - Microorganisms Pathogenic to Humans and Animals F-3

Abs Jour: Ref Zhur - Biol., No 18, 1958, 81571

Author : Verkos, K.P., Pletneva, G.G., Blankman, A.L., Vishnevskaya, N.V., Korneyeva, G.A., Linskaya, A.I., Lur'e, A. Ya., Isakovich, S.P.

Inst : -

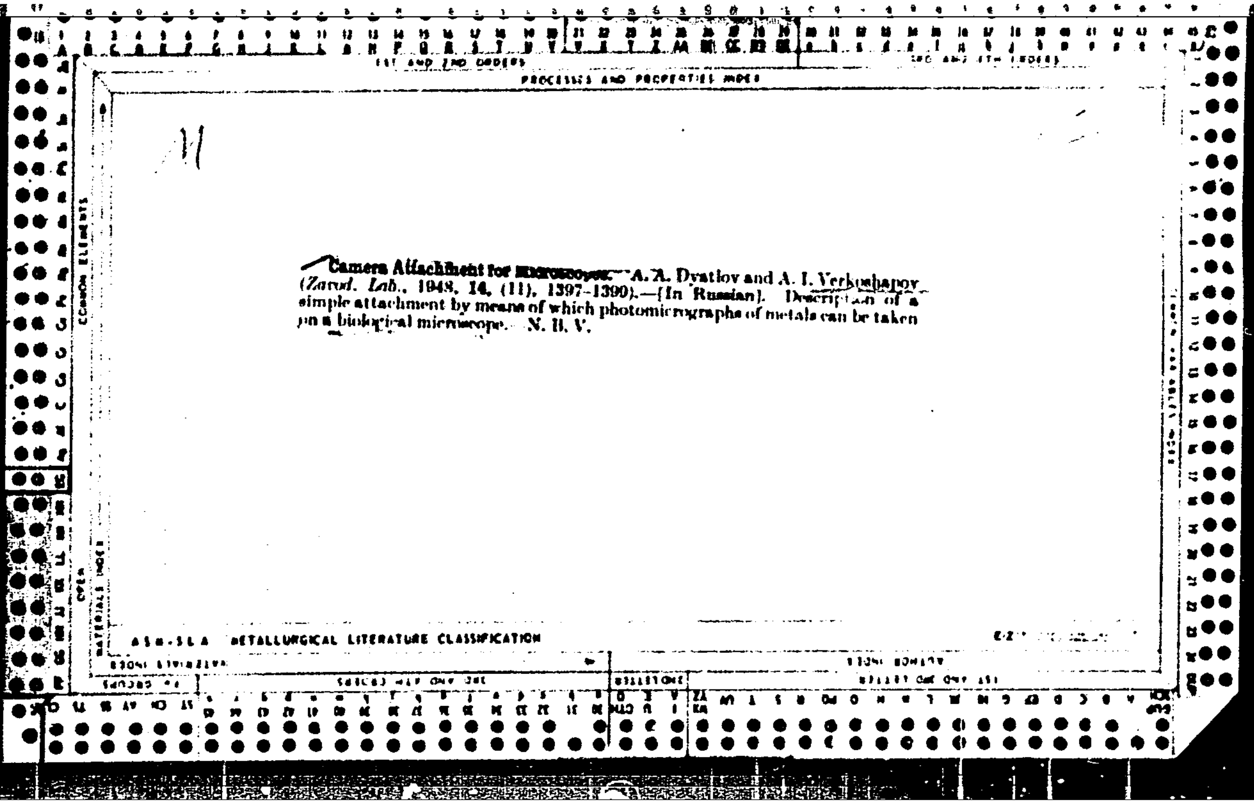
Title : Vaccination Against Tuberculosis of Children and Adolescents Having a Positive Reaction to Intra-Dermal Injection of Tuberculin.

Orig Pub: Vopr. okhrany materinstva i detstva, 1957, 2, No. 6, 40-43

Abstract: No abstract.

Card 1/1

42



1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
COMMON ELEMENTS
MATERIALS INDEX
OPEN

M

Camera Attachment for microscopes.—A. A. Dyatlov and A. I. Verkhoshapov (*Zavod. Lab.*, 1948, 14, (11), 1397-1399).—(In Russian). Description of a simple attachment by means of which photomicrographs of metals can be taken on a biological microscope.—N. B. V.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VERKOV, I.I.

31009. VERKOV, I. I. AND BAKKAL, S. A.

Lechenie samoprsizvol'noy gangreny tkanevoy terapiey po metody akademika V. P. filatova. Khirurgiya, 1949, No. 9, s. 65-69

VERKHOVTSEV, I.

COMMUNIST PARTY OF THE SOVIET UNION - CONGRESSES

Sixth conference of the Bolshevik Party. Krest'ianka 31, No. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 195~~3~~2 Uncl.

VERKUTOV, A.N.; ANTIPENKO, V.S.; ASEYEV, L.V.

Homotransplantation of the skin as a method for the acceleration of wound healing. Khirurgiia 36 no. 5:106-113 My '60. (MIRA 14:1)
(SKIN GRAFTING) (WOUNDS—TREATMENT)

VERLAN', A.F.

Solving Volterra second-order integral equations by analog computers. Dop. AN URSR no.12:1568-1570 '62. (MIRA 16:2)

1. Institut kibernetiki AN UkrSSR. Predstavleno akademikom AN UkrSSR V.M. Glushkovym [Hlushkov, V.M.].
(Integral equations) (Electronic analog computers)

ACCESSION NR: AR4040439 S/0044/64/000/001/B107/B107

SOURCE: Ref. zh. Matematika, Abs. 1B514

AUTHOR: Verlan', A. F.

TITLE: Method of simulating differential equations with boundary conditions on electronic mathematical machines of continuous action

CITED SOURCE: Dopovidi AN URSR, no. 4, 1963, 451-453

TOPIC TAGS: differential equation, electronic mathematical machine, continuous action mathematical machine, algebraic equation model, automation process, differential equation simulation, resolution process automation

TRANSLATION: Author proposes to find a solution of the system of differential equations

$$\frac{dX}{dt}=f(t, X(t)) \qquad (1)$$

with boundary conditions

$$\alpha X(0)+\lambda X(t_1)+\beta X(T)=\gamma$$

with the help of iterative formula

$$\alpha X_{k+1}(0)=\gamma-\lambda X_k(t_1)-\beta X_k(T).$$

Card 1/2

ACCESSION NR: AR4040439

Vectors $X(t_i)$ and $X(T)$ are determined by means of solution of system (1) on electronic mathematical machine of continuous action at initial conditions equal to $X_k(0)$. For automation of resolution process it is necessary to have memory unit and model of algebraic equations. N. Lyashchenko.

DATE ACQ: 03Mar64 SUB CODE: MA ENCL: 00

Card 2/2

VERLAN', A.F.

Determining the frequencies of natural vibrations by means of electronic models. Dop. AN URSR no.6:733-735 '63
(MIRA 17:7)

1. Institut kibernetiki AN UkrSSR. Predstavleno akademikom AN UkrSSR V.M. Glushkovym [Hlushkov, V.M.].

VERLAN', Anatoliy Fedorovich, aspirant

Concerning A.I. Petrenko's report "Composition of a problem using a model." Izv. vys. ucheb. zav.; elektromekh. 6 no.9: 1126 '63. (MIRA 16:12)

1. Otdel matematicheskogo modelirovaniya instituta kibernetiki AN UkrSSR.

[illegible]

[illegible]

TOPIC TAGS: nonlinear integral equation, Fredholm integral equation, second kind, electronic model, continuous action computer

Card 1/2

tical. Orig. art. has: 2 figures, [illegible] equations.

SUBMITTED: 08[illegible]

SUB CODE: DP, MA NO REF SOV: 004 OTHER: 000

Card 2/2

ACCESSION NR: AT4[illegible]

$$L_2[y]\ f(x) + \lambda \int_a K(x,s)F[y(s)]ds \qquad (2)$$

were studied under the assumptions that solutions of these equations exist and are unique. The variational least-squares method, which is the most [illegible] first place, the possibility of applying this method to the solution of linear Fredholm integral e[illegible] considered. The solution of these equations is reduced to the solution of a system of algebraic equations. A block diagram of the computer designed to realize the algorithm for calculating the coeffi-

Card 2/3

L 14484-65
ACCESSION NR. AT4045644

least-squares to the solution [illegible] nonlinear equation (2) is also analyzed. It is shown [illegible] certain variables, the solution of a system [illegible] equations [illegible] involved. [illegible] equation (1) differs

ASSOCIATION: none

SUB [illegible] [illegible]/63 [illegible] SUB CODE: M[illegible]

N[illegible] R[illegible] [illegible] [illegible]

Card 3/3

AUTHOR: Verlan', A. F.

TITLE: Integral equation solver

16

SOURCE: Avtomatika i priborostroyeniye, no. 3, 1964, 24-25

TOPIC TAGS: solver, equation solver, integral equation solver

ABSTRACT: The development of a new analog integral equation [illegible] reported which consists of a [illegible] general [illegible] and a residual [illegible]. The [illegible] solver is illustrated by an example of the solution of a Fredholm [illegible] equation of the second kind. The error is claimed to be within [illegible] solver uses a method [illegible] to the method of least squares, [illegible] handling a wide scope of integral equations including nonlinear [illegible]

1/2

L 10830-65
ACCESSION NR: AP4046109

with various modes of regular kernels.

ASSOCIATION: Institut kibernetiki AN UkrSSR (Institute of

AUTHOR: [illegible]

[illegible]

of variational methods with an analog computer

SOURCE: AN UkrSSR. Institut kibernetiki. Kibernetika i vychislitel'naya tekhnika (Cybernetics and computer engineering). Kiev, Naukova dumka, 1964, 3-7

TOPIC TAGS: integral equation, Fredholm equation, analog computer, approximation theory, least squares method, polynomial approximation

[illegible] The article describes a method of approximating an inte-

ACCESSION NR: AT5004746

[illegible] of an analog solution of a Fredholm equation of the second [illegible]

[illegible]

in which the approximate solution of the equation is sought in the form of a sum

$$y(x) \approx \sum_{i=1} [illegible]$$

[illegible] linearly independent functions

[illegible]

[illegible] method is

A block diagram of the [illegible]

I(x) and per [illegible] (1). The calculation

[illegible]

ASSOCIATION: None

SUB CODE: MA, DP

[illegible]

[illegible]

[illegible]

Fig. 1. Block diagram of computer.

1 - Function generation block, 2 - integral

TOPIC TAGS: [illegible] integral equation, Fredholm equation [illegible]

ABSTRACT: The [illegible] integral equations such as Fredholm equations of the second kind

$$y(x) = f(x) + \lambda \int_a^b K(x, s)\, y(s)\, ds \qquad (1)$$

[illegible] 1/4

L 34158-65

ACCESSION NR: AT50[illegible]4[illegible]48

0

with the aid of analog [illegible]
generate analogs of [illegible] the [illegible]
The approx[illegible] [illegible] account in the form

[illegible]

unit capable of generating [illegible]
[illegible]
[illegible] operat[illegible] rates it possible to solve

L 34158-65

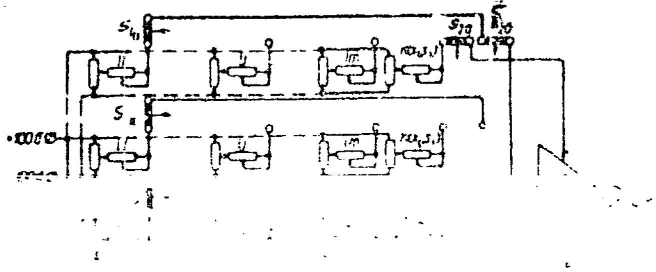
ACCESSION NR: AT5004748

that the function generator described in this article is superior to others in that it can be easily adjusted and can be constructed from elements widely used in analog computer technology. Orig. art. has: 4 figures and 7 formulas.

ASSOCIATION: None

SUBMITTED: 30Sep64 ENCL: 01 SUB CODE: DP, MA

NR REF SOV: 001 OTHER: 001


S_II
S_10

AUTHOR: Varlan', A. P.

16 B

TITLE: Simulator for solving integral [illegible] Class 42, No. 168736

SOURCE: Byulleten' izobreteniy [illegible]

TOPIC TAGS: analog computer, simulator, integral equation, integral transform, function generator

ABSTRACT: This Author Certificate presents a simulator for solving integral equations [illegible] integral transf[illegible] connected to the required [illegible]

and to [illegible] the class of [illegible]

Card 1/1

PUKHOV, Georgiy Yevgen'yevich; GREZDOV, Gennadiy Ivanovich;
VERLAN', Anatoliy Fedorovich; MEL'NIK, T.S., red.

[Methods for solving boundary value problems using analog computers] Metody resheniia kraevykh zadach na elektronykh modeliakh. Kiev, Naukova dumka, 1965. 144 p.
(MIRA 18:3)

1. Chlen-korrespondent AN Ukr.SSR (for Pukhov).

L 18580-63 EWT(1)/BDS AFFTC/ASD/SSD

S/0181/63/005/006/1595/1600 56

ACCESSION NR: AP3001277

AUTHORS: Kondilenko, I.I.; Verlan, E.M.; Korotkov, P.A.; Strizhevskiy, V.L. 55

TITLE: Indicatrix of the combination scattering of light in a crystalline medium 2

SOURCE: Fizika tverdogo tela, v. 5, no. 6, 1963, 1595-1600

TOPIC TAGS: combination scattering, indicatrix, Si, O, optic axis, crystalline material

ABSTRACT: The authors have studied the conditions of dependence (of the indicatrix) of combination scattering of light in crystalline material both in theory and in experimental work. The theoretical expressions are derived from previous works (V. L. Strizhevskiy, FTT, 3, 2929, 1961, and FTT, 4, 1492, 1962). The experimental work is basically similar to previous work on liquids (I. I. Kondilenko, P.A. Korotkov, and V.L. Strizhevskiy, Opt. i. spektr., 11, 169, 1961). The authors obtained general formulas determining the indicatrix in any arbitrary crystal. Vibrations of 466 cm^{-1} in quartz were first used in experimental investigation of the indicatrix in a crystal in the angular interval of 40-140°. The experimental data agree with theory. The authors show that a study of the indicatrix of combination scattering may serve as a method of investigating oriented

Card 1/2

L 18580-63

ACCESSION NR: AP3001277

systems. To illustrate the method (with a few simplifying assumptions) they determined the angle formed by the Si-O bond with the optic axis. This value proved to be 55°, which corresponds satisfactorily with the actual value of 54°44'. There are disadvantages to the system, however, limiting its usefulness. Chief of these is the presence of parameters in the formulas that are unknowns--components of the tensor of combination scattering. Furthermore, the spectrum of combination scattering is not always capable of experimental observation. Orig. art. has: 1 figure, 1 table, and 13 formulas.

ASSOCIATION: Kiyevskiy gosudarstvenny*y universitet im. T.G. Shevchenko (Kiev State University)

SUBMITTED: 11Jan63
DATE ACQ: 01Jul63
ENCL: 00

SUB CODE: PH
NO REF SOV: 009
OTHER: 001

Card 2/2

VERLAN', A.F.

Use of storage devices in solving problems by means of analog computers. Mat. mod. i elek. tsepi no.1:41-44 '63. (MIRA 16:11)

L 11038-63 EWT(d)/EWT(m)/FCC(w)/BDS/EEC-2 AFFTC/ASD/AFMDC/ESD-3/APGC
Pg-4/Pk-4/Pq-4/Pq-4
ACCESSION NR: AT3002147 S/2923/62/000/000/0054/0056

77

AUTHOR: Verlan', A. F.

16

TITLE: Solving the Fredholm integral equation of the second kind with electronic analog computers

SOURCE: Vy*chislitel'naya matematika i tekhnika; trudy* aspirantov Instituta kibernetiki AN USSR. Izd-vo AN USSR, 54-56

TOPIC TAGS: Fredholm equation, computer solution, solution, integral equation, analog computer

ABSTRACT: This well-known equation can be solved either by the method of successive approximations or by the Seidel's iterative method. In both cases special devices are required in addition to a standard analog computer. As in many cases the kernel of the equation can be replaced by a degenerate kernel, the author suggests, for such cases, a method of solution that requires a standard analog computer only. Any computer containing accumulators, integrators, multiplying units, and nonlinear-function units is suitable. Orig. art. has: 1 figure, 10 formulas, and 1 table.

ASSOCIATION: Institut kibernetiki AN USSR (Institute of Cybernetics, Academy of

Card 1/2

S/0139/63/000/005/0113/0117

ACCESSION NO: AP4002276

AUTHORS: Verlan, E. M.; Strizhevskiy, V. L.

TITLE: Triple Fermi resonance in a carbon tetrachloride molecule

SOURCE: IVUZ. Fizika, no. 5, 1963, 113-117

TOPIC TAGS: carbon tetrachloride, Fermi resonance, oscillatory energy level interaction, resonance interaction, fundamental Fermi resonance doublet, degenerate resonance level, CCl_4 absorption band, oscillatory absorption band

ABSTRACT: A theoretical study has been made of the Fermi triple levels in carbon tetrachloride represented by $2\nu_3; \nu_1+\nu_3+\nu_4$ and $2(\nu_1+\nu_4)$. Of these ν_1 is fully symmetric, whereas ν_3 and ν_4 are triply degenerate. The wave function of the perturbation system is written as $\Psi^a = C_1^a \varphi^a + C_2^a \chi^a + C_3^a \tau^a$. The potential energy term is represented by a cubical function of the normal coordinates, and the system of linear homogeneous equations is given by

Card 1/2

ACCESSION NO: AP4002276

$$\sum_{\kappa=1}^{3}[(E^{\alpha}-E_{\kappa}^{0})\delta_{l\kappa}-V_{l\kappa}^{\alpha}]C_{\kappa}^{\alpha}=0;\ l=1,2,3$$

$$\alpha=A_1,E,F_2.$$

The solution of the characteristic equation then yields respectively 1590, 1566, and 1534 for the three energy levels considered. These results show reasonably good agreement with the experimental values reported by M. P. Lisitsa, V. N. Malinko (Opt. i spektr., 4, 455, 1958). "The authors are grateful to M. P. Lisitsa for evaluating the analysis." Orig. art. has: 11 equations and 1 table.

ASSOCIATION: Kiyevskiy gosuniversitet imeni T. G. Shevchenko (Kiyev State University)

SUBMITTED: 28Feb62 DATE ACQ: 02Dec63 ENCL: 00

SUB CODE: PH NO REF SOV: 008 OTHER: 001

KONDILENKO, I.I.; VERLAN, E.M.; KOROTKOV, P.A.; STRIZHEVSKIY, V.L.

Indicatrix of the Raman spectrum in a crystalline medium.
Fiz. tver. tela 5 no.6:1595-1600 Je '63. (MIRA 16:7)

L 26049-66 EWT(1) IJP(c) GG

ACC NR: AP6013021 SOURCE CODE: UR/0051/66/020/004/0605/0615

40
39
B

AUTHOR: Verlan, E. M.

ORG: none

TITLE: Investigation of the shape of a tensor and temperature dependence of the Raman effect of gas polyatomic molecules

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 605-615

TOPIC TAGS: tensor analysis, Raman effect, temperature dependence, polyatomic molecule, gas, molecule

ABSTRACT: With the aid of the electronic wave function of the adiabatic approximation, forms of the tensor of the Raman effect have been found for various oscillations of the XY_2 molecule with C_{2v} symmetry. It was shown that at a distance from the absorption zone, the tensor of the Raman effect is practically symmetrical. Dissymmetry of the tensor increases in proportion to approximation of the incident light frequency to frequencies of the cathode-ray oscillatory absorption of the molecule. A close connection between the excited electron-oscillatory properties and the intensity lines in the spectrum of the Raman effect was determined. In an earlier study (M. V. Vol'kenshteyn, M. A. Yel'yashevich, B. I. Stepanov, Kolebaniya molekul, t. 2, M.-L., 1949), it was shown that the oscillation-frequency change of the molecule in the excited electron state leads to deflection of the temperature-dependence line.

2

Card 1/2 UDC: 535.375.001.1

L 26049-66

ACC NR: AP6013021

The definitions presented indicate that in gases these abnormalities are small and cannot elucidate any significant deflection in liquids. The author thanks L. N. Ovander for his valuable advice and interest in this work. Orig. art. has: 37 formulas. [Based on author's abstract] [NT]

SUB CODE: 20/ SUBM DATE: 16Nov64/ ORIG REF: 010/

Card 2/2

L 36434-66 EWT(1)

ACC NR: AP6015421 SOURCE CODE: UR/0051/66/020/005/0802/0808

41

40

B

AUTHOR: Verlan, E. M.

ORG: none

TITLE: Effect of the characteristics of the transition state on Raman spectra of gases

SOURCE: Optika i spektroskopiya, v. 20, no. 5, 1966, 802-808

TOPIC TAGS: Raman spectrum, excited electron state, ground state, vibration frequency

ABSTRACT: The effect of the dynamic and geometrical characteristics of a molecule (vibration frequencies of nuclei, vibration form, anharmonicity, equilibrium position of nuclei, symmetry of molecule) in a transition state on Raman spectra are treated by assuming that the frequency of incident light ω is far from the frequencies corresponding to purely electronic transitions of the molecule. It is also assumed that the adiabatic approximation applies. Two cases are considered: (a) the symmetry of the molecule in the excited electronic state coincides with its symmetry in the ground state; (b) the symmetry of the excited and ground states is different. A shift in the equilibrium position of the nuclei, a change in the form of vibrations and frequencies, and the anharmonicity of the electronic state cause the appearance of overtones and combination tones and affect the line intensities and the temperature depen-

UDC: 535.375

Card 1/2

L 36434-66

ACC NR: AP6015421

dence of the lines. A change in the symmetry of the molecule reinforces the intensity of the incompletely symmetrical vibrations. The author is sincerely grateful to L. N. Ovander for his steady interest and helpful suggestions. Orig. art. has: 15 formulas.

SUB CODE: 07/ 20/ SUBM DATE: 26Dec64/ ORIG REF: 006/ OTH REF: 001

Card 2/2

ACC NR: AP6015440 SOURCE CODE: UR/0051/66/020/005/0916/0917

AUTHOR: Verlan, E. M.

24
28
B

ORG: none

TITLE: Selection rules in Raman spectra 21

SOURCE: Optika i spektroskopiya, v. 20, no. 5, 1966, 916-917

TOPIC TAGS: Raman spectrum, selection rule, excited electron state, ground state

ABSTRACT: Theoretical and experimental studies indicate that the symmetry of a molecule may change when it passes to an excited electronic state. In this article, the selection rules have been extended to this case. The symmetry groups of a molecule in the ground state and excited electronic state are designated C^0 and C^j respectively. For simplicity, the discussion is limited to cases where groups C^0 and C^j have irreducible unidimensional representations. It is also assumed that C^j is a subgroup of group C^0. It is shown that

$$\tau(C^0) = T_0(C^0) \times T_{\omega j}(C^0) \times \Gamma_{H_j}(C^0) \times T_1(C^0).$$

and that for lines of the fundamental tone and the special case where $T_0(C^0)$ is a single representation,

$$\tau(C^0) = T_{\omega j}(C^0) \times \Gamma_{H_j}(C^0) \times T_1(C^0).$$

Card 1/2 UDC: 535.375.001.1

L 34415-66

ACC NR: AP6015440

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It is concluded that the "allowed" vibrations in Raman spectra will be only those which are contained in an expansion of the product $\Gamma_{\alpha\beta}(C^{0}) \times \Gamma_{ij}(C^{0})$ in irreducible representations of group C^{0}. This selection rule becomes the usual one in the case where groups C^{0} and C^{J} coincide. It can also be readily verified that all the vibrations of a molecule with D_{2h} symmetry in the ground electronic state (even A_{1u}) are "allowed" in Raman spectra if this molecule decreases its symmetry to C_{2v} in excited electronic states. Author is deeply grateful to L. N. Ovander for a discussion of the results. Orig. art. has: 5 formulas.

SUB CODE: 20/ SUBM DATE: 29Sep65/ ORIG REF: 002/ OTH REF: 001

Card 2/2 BLG

L 42901-66 EWT(1) IJP(c) WW/GG

ACC NR: AP6018442 SOURCE CODE: UR/0051/66/020/006/1003/1009

49
48
B

AUTHOR: Verlan, E. M.

ORG: none

2/

TITLE: Combination scattering of light by gases in the absorption band

SOURCE: Optika i spektroskopiya, v. 20, no. 6, 1966, 1003-1009

TOPIC TAGS: combination scattering, light scattering, absorption band, diatomic molecule, complex molecule, quantum mechanics

ABSTRACT: The case where the frequency of the irradiating line lies within the absorption band was investigated. Since scattering is a second order process, it was necessary to consider the initial, intermediate and finite state of a quantum-mechanics system: molecule + radiation field. The analysis involved diatomic gas molecules, i. e., the model of a one-dimensional harmonic oscillator. The empirical results obtained confirmed previous conclusions regarding the effect of the intermediate state on the line intensity in combination scattering spectra. It was demonstrated that the intensity is proportional to the fourth power of the frequency when removed from the absorption bands. The closer the process approaches the absorption band the greater the number of deviations from this law. In the absorption band, the frequency relationship is a function of the properties of the resonance electron level. It appears,

Card 1/2 UDC: 535.375 (206.3)

L 42901-66

ACC NR: AP6018442

that in polyatomic molecules this can bring about a different frequency relationship between fully symmetric oscillations and oscillations which are not fully symmetric. The nonsymmetry of the combination scattering tensor was also analyzed. It was established that the nonsymmetry increases as it approaches the absorption band. The frequencies at which the maximum light intensities occur are derived. The author thanks L. N. Ovander for constant interest in the work and for valuable advice. Orig. art. has: 28 formulas.

SUB CODE: 20/ SUBM DATE: 26Dec64/ ORIG REF: 006

Card 2/2

ACC NR: AP6026697 SOURCE CODE: UR/0181/66/008/008/2435/2439

AUTHOR: Verlan, E. M.; Ovander, L. N.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: Resonance Raman scattering in crystals

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2435-2439

TOPIC TAGS: Raman scattering, exciton, absorption coefficient

ABSTRACT: According to a theory developed earlier by one of the authors (Ovander), the Stokes component of the Raman scattering in a crystal should be treated as the splitting of a light exciton into two parts. One is a light exciton in the region of crystal transparency; the other is almost purely a mechanical vibration, which eventually heats the crystal. A study is made of the resonance Raman scattering, taking into account the mechanical dispersion of vibration and damping. This limits the intensity of the light scattering in the resonance point. It is shown that auxiliary waves arise near exciton absorption and can play important roles in the case of thin plates. It follows from the theory that the absorption coefficient (for the ordinary wave) grows faster than the intensity of the Raman scattering as the incident light frequency approaches the absorption band frequency. Orig. art. has: 1 figure, 17 formulas.

SUB CODE: 20/ SUBM DATE: 28May65/ ORIG REF: 005

Card 1/1

VERLATOVA, L. F.

IALS INDEX

(72)

Chem.

The interaction of chlorine with carbon. V. V. Korshak, Yu. A. Strepikheev, and L. F. Verlatova (D. I. Mendeleev Chem. Technol. Inst., Moscow). *J. Gen. Chem.* (U.S.S.R.) 17, 1626-31(1947)(in Russian).—(1) Chlorination of active C, dried at 120°, with Cl$_2$ mixed with SCl$_2$, yielded some CCl$_4$ at 700–800°; adm SbCl$_3$ or of FeCl$_3$ was ineffective, nor was any CCl$_4$ formed in attempts at chlorination by heating a mixt. of C with SbCl$_5$ in a sealed tube 100 hrs. at 350–400°. (2) Thermal decompn. of CCl$_4$ vapor over active C decreases, at a given temp., with increasing rate of flow r, and, at const. r, linearly with the temp.; at $r = 0.10, 0.60, 3.10$, g./min., the wt.-% CCl$_4$ decompd. was: at 400°, 12.1, 6.1, 4.9; at 500°, 21.4, 17.6, 10.6; at 600°, 39.5, 25.0, 15.1; at 700°, 52.5, 33.6, 23.9. The decrease of the decompn. yield with decreasing time of contact is rapid only up to about $r = 0.6$, considerably slower with further increasing r; the slopes of the lines giving the degree of decompn. as a function of temp. are steeper the lower the r. The catalytic effect of C on the decompn. of CCl$_4$ is demonstrated by 2 runs without C: at $r = 0.10$ and 1.59, wt.-% CCl$_4$ decompd. at 400°, 6.0 and traces, at 700°, 36.0 and 15.0; the degree of decompn. reached at 500° in the presence of C is attained only at 700° in the absence of the catalyst. (3) The products of the thermal decompn. of CCl$_4$ are Cl$_2$, C$_2$Cl$_4$, C$_2$Cl$_6$, and C$_6$Cl$_6$; at a lower temp. (400°) more C$_2$Cl$_6$ is formed, while higher temp. (700°) favors formation of C$_2$Cl$_4$ and particularly C$_6$Cl$_6$. (4) Thermal decompn. of C$_2$Cl$_6$ on active C increases nonlinearly with temp.; at $r = 0.20, 0.25, 0.30, 0.35$ g./min., the wt.-% C$_2$Cl$_6$ decompd. was: at 500°, 12.3, 9.6, 8.3, 4.3; at 600°, 22.2, 17.3, 16.0, 12.6; at 700°, 42.1, 39.8, 36.8, 26.0. The products are Cl$_2$, C$_2$Cl$_4$, and C$_6$Cl$_6$. (5) The catalytic effect of SCl$_2$ on the formation of CCl$_4$ is due to the reactions $2SCl_2 \rightarrow S_2Cl_2 + Cl_2$, $2S + C \rightarrow CS_2$, $S_2Cl_2 \rightarrow SCl_2 + S$, and $CS_2 + 3Cl_2 \rightarrow CCl_4 + S_2Cl_2$. The mechanism of the thermal decompn. of CCl$_4$ is represented by

$$\begin{tikzcd}
CCl_4 \arrow[r] & Cl + CCl_3 \arrow[r] \arrow[d] & .Cl + CCl_2 \arrow[r] \arrow[d] & Cl + CCl \arrow[d] & \\
 & C_2Cl_6 \arrow[r, shift left] & Cl_2 + C_2Cl_4 \arrow[l, shift left] \arrow[r] & Cl_2 + C_2Cl_2 \arrow[r] & C_6Cl_6.
\end{tikzcd}$$

The assumed polymerization of the intermediate C$_2$Cl$_2$ into C$_6$Cl$_6$ is in agreement with Ott and Dittus (*C.A.* 37, 5013[4]).

N. Thon

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Distr: 4E3c/4E3d

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64 The first Hungarian experimental nuclear reactor. Gy. Verle. *Elektrotechnika.* Vol. 50, 1957, No. 10—12, pp. 375—380, 5 figs.

The reactor under construction in the hills of Budapest will have a thermal power of 2000 kw. The max. attainable thermal flux of neutrons is $2 \cdot 10^{13}$ neutrons per sq. cm-sec. Moderator and reflector of the heterogeneous type reactor consist of H_2O. Uranium oxide enriched up to 10% in U^{235} is employed for fuel. The thin, cylindrical heating elements are arranged in bundles. A full charge of the active zone is practically sufficient for several years. The design and construction of the reactor, details of the safety devices, operation of the manipulators are published in detail. Measurement, checking and control of the reactor power are effected with ionization chambers. All premises from which radioactive gases may gain access to the air must be kept under negative pressure and a constant exchange of air must be maintained in them. The volume of air discharged per hour through the 80 m stack is 95,000 cu.m. The health of the staff will be protected by systematic dosimetric checkups. According to plans the reactor will be put into service at the end of 1958.

RB 1/1

VERLE, I.

"Interaction of Nucleons Through a Mesonic Field," Byul. Polskoy Akad, nauk, otd. 3, 1, No 3-4, 1953, pp 91-94

A method of an approximate solution of the equation of the mesonic field is given by expanding the mesonic potential into series in inverse powers of velocity of light. It is applied to determination of interaction of nucleons within the frame of the classical meson theory. The potential of nucleonic interaction is derived from the law of conservation of energy-momentum.

RZh Fiz, No 3, 1955

VERLE, I.

"'Equivalent' Potentials in Classical Equations of Motion", (Theoretical Physics, Quantum Theory) Byull. Polskoy Akad. Nauk, Otd. III, No 7, 1953, pp 281-285

Abs

W-31146, 1 Feb 55

VERLE, I.I.

New approach to the problem of the effects of relativistic terms in the meson theory of nuclear forces. Zhur.eksp. i teor. fiz. 25 no.1:19-35 Je '53. (MLRA 7:10)
(Mesons) (Nuclear forces) (Field theory)

USSR

A new approach to the question of [illegible] effe[illegible] of the rela[illegible] [illegible]

ticularly, to the [illegible] scheme of approxi[illegible]
nucleons. The general scheme [illegible] mechanics which gives a
successfully applied in quantum mechanics [illegible] problem of the deuteron (2
possible new approach to the problem of nuclear forces.
bodies) on the basis of the theory of nuclear forces.

J. Rovtar Leach

VERLE, I. I.

"A new approach to the question of the influence of relativistic terms in the meson theory of nuclear forces." by I. I. Verle (p. 19)

SO: Zhurnal Eksperimentalnoi i Teoreticheskoi Fiziki, 1953, Vol 25, #1 (7)

VERLE, I1

"Application of a New Method of Successive Approximations to Quanta Computation in Mesonic Theory of Nuclear Forces," Byul. Polskoy Akad, nauk, otd. 3, 1, No 5, 1954, pp 169-172

The method of successive approximations developed by the author in his preceding articles (RZhFiz, 1954, 6922; 1955, 4129) is applied to computation of the potential of interactions between nucleons in the quantum field theory. The mesonic field is assumed to be pseudoscalar. As an example, interaction, corresponding to interaction in the second approximation of the perturbation theory, is computed.

RZhFiz, No 3, 1955

VERLE, Ya.

"New Approximation Method for Meson Fields"

Byull Polskoy Akad Nauk, Otd III, No 1-2, 1953, pp 22-25

ABS

W-31098, 26 Nov 54

AT5028655

SOURCE CODE: UR/2633/65/000/019/0003/0060

24
18
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AUTHOR: Verle, Ye. K.; Zhabunina, V. P.
44,55 44,55

ORG: Far Eastern Scientific Research Hydrometeorological Institute (Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut) 4-55

TITLE: Time-wise variability of wind in the upper troposphere and lower stratosphere

SOURCE: Vladivostok. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 19, 1965. Voprosy aerologii i sinopticheskoy meteorologii (Problems in aerology and synoptic meteorology), 3-60

TOPIC TAGS: tropospheric wind, stratospheric wind, wind variability, timewise wind variability
12,44,55

ABSTRACT: This monograph is divided into four parts and presents results for investigations carried out to define more accurately the time-wise variability, at intervals of up to 12 hr, of the vector, velocity, and direction of the winds over the southern Primor'ye region of the Soviet Far East. Part 1 describes the observational data and the computational procedures. Part 2 deals with the investigation, for a standard time period, of the time-wise variability in wind vector as determined from two closely spaced aerological stations. Data obtained from a special series of radiosonde observations are also analyzed. Part 3 discusses similar characteristics for the variability in the scalar velocity of the winds, and Part 4, the results of

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ACC NR: AT5028655

studies on variability in wind direction. The data used in the study were obtained at the two stations as follows: Station 1, with RZ-049 and A-22-III radiosondes, tracked with a "Malakhit" radiotheodolite, with 4 ascents a day; Station 2, with RZ-049 radiosondes tracked by SON-4 radar, with 6 ascents a day; special radiosondes at the first station using the "RKZ-1 meteorological radar station," with ascents every 2 hr; and special radiosonde data collected in the Indian Ocean by the research ship "Yu. M. Shokal'skiy," with ascents every 3 hr. Special observations were also made over a longer period of time in the vicinity of Vladivostok. The characteristics of the time-wise variability of wind were calculated by combining observations of the two stations made 4 times a day with those made 6 times a day at intervals of 0100, 0300, 0500, 0700, 0900, and 1100 hr, thereby making these data comparable to those obtained from the special radiosonde observations. Wind variability characteristics used in the study included the mean square variability in a) wind vector, scalar velocity of the wind, and wind direction, and b) the relative variability in wind vector and scalar velocity. Data on the variability in wind vector are presented separately for each season for heights of 5 to 14—16 km for time intervals of 1 to 12 hr. Observational data, theoretical and data processing procedures, and conclusions drawn from the studies are presented in detail. Orig. art. has: 14 figures, 27 tables, and 33 formulas. [ER]

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 005/ ATD PRESS: 4156

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Card 2/2

L 8922-66 EWT(1)/FCC RB/GW

ACC NR: AT5028656 SOURCE CODE: UR/2633/65/000/019/0061/0089

37
B+1

AUTHOR: Verle, Ye. K.; Zhabunina, V. P.
44,55 44,55

ORG: Far Eastern Scientific Research Hydrometeorological Institute (Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut)

TITLE: The timewise variability of temperature and pressure in the atmosphere

SOURCE: Vladivostok. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 19, 1965. Voprosy aerologii i sinopticheskoy meteorologii (Problems in aerology and synoptic meteorology), 61-89

TOPIC TAGS: atmospheric temperature, atmospheric pressure, lapse rate, pressure gradient, radiosonde, meteorologic radar, wind velocity, tropopause

ABSTRACT: The results are presented of studies of the time-variability of temperature and pressure in the atmosphere up to heights of 20—22 km for intervals of up to 36 hr, which were carried out at the Aerology Division of the [Soviet] Far Eastern Scientific Research Hydrometeorological Institute. Data used in these studies were obtained with various types of radiosondes (68,477 observations) at Sad-Gorod (Vladivostok) and included the use of the RKZ-meteorological radar system (9101 observations). Analyses were made to determine the distribution of variability of temperature and pressure with height and its annual changes. The relationship between the two variations and their relationships to mean wind velocities were also investigated. A comparison was

Card 1/2 UDC: 551.524+551.547(571.63)

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made between the height of the level of maximum wind, the maximum variability in temperature, and the lower limit of the tropopause. Evaluations were made to determine periods during which temperature and pressure data were suitable for use, and nomograms were devised for their determination. Orig. art. has: 11 figures, 14 tables, and 1 formula. [ER]

SUB CODE: / SUBM DATE: none/ ORIG REF: 012/ OTH REF: 001/ ATD PRESS: 4152

GC

Card 2/2

L 12132-66 EWT(1)/FCC GW

ACC NR: AT5020657 SOURCE CODE: UR/2633/65/000/019/0090/0098

44,55

AUTHOR: Verle, Ye. K.

44,55

37
B+1

ORG: Far Eastern Scientific Research Hydrometeorological Institute, Vladivostok (Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut)

TITLE: The contribution of the daily variation to the variability of temperature with time

15,44,55

SOURCE: Vladivostok. Dal'nevostochnyy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 19, 1965. Voprosy aerologii i sinopticheskoy meteorologii (Problems in aerology and synoptic meteorology), 90-98

TOPIC TAGS: air temperature, weather forecasting, radiosonde, diurnal variation, harmonic oscillation

ABSTRACT: An analytic expression is derived for the time variability of temperature caused by the daily variation. The relative contribution of the daily variation to the variability of temperature with time is evaluated on the basis of data from a 15-day series of increasing-frequency radiosonde observation. The following expression is obtained:

$$\sigma(\Delta t) = 2A \sin \frac{\pi}{T} \Delta t \sqrt{\frac{\sum_{i=1}^{i=n} \cos^2 \frac{(2i-1)\pi}{T} \Delta t}{n}},$$

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where $\sigma(\Delta t)$ is the mean-square variability over the time interval Δt and T is the oscillation period. The time variability has the nature of a regular harmonic oscillation (see Fig. 1). The contribution of the daily variation to the temperature variability is found to be very considerable over time intervals of up to 10 hrs. The findings are considered preliminary, and the need for more observational data is noted. Orig. art. has: 11 formulas, 4 graphs, and 3 tables.

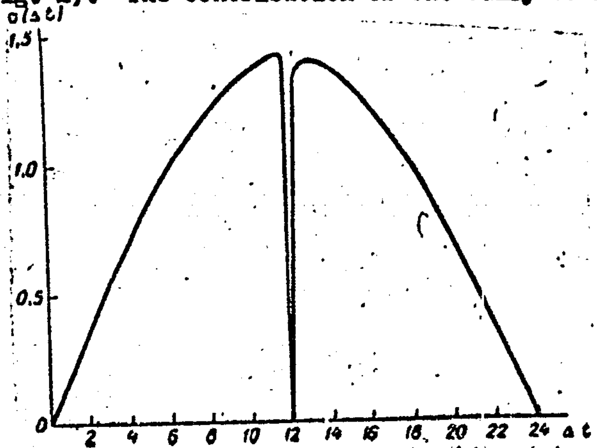

Fig. 1. Mean-square variability with harmonic oscillation as a function of the time interval.

SUB CODE: 04/ SUBM DATE: 00/ SOV REF: 007

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ACCESSION NR: AT4018153 S/2633/63/000/015/0137/0147

AUTHOR: Verle, Ye. K.

TITLE: An analytical method for the processing of radiosonde wind observations from a moving vessel

SOURCE: Vladivostok. Dal'nevostoch. n.-i. gidrometeor. institut. Trudy*, no. 15, 1963, 137-147.

TOPIC TAGS: meteorology, wind, aerology, radiosonde, wind velocity, wind direction, meteorological radar

ABSTRACT: A method is proposed for determination of wind velocity and direction on the basis of observations from a moving vessel. An analytical processing method already has existed for observations from a fixed land station, but no similar method for processing shipboard aerological observations has been available. Radar observations on the "A. I. Voyeykov" and "Yu. M. Shokal'skiy" has made it necessary to develop such a method. It is noted that analytical methods cannot be applied fully except when electronic computers are used. Aerological observations presently are not processed on computers, but this will be the case in the near future; meanwhile, analytical methods can be used for auxiliary purposes - determining errors in graphic methods and in scientific research, when special accuracy

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ACCESSION NR: AT4018153

of computations is necessary, such as in determining the variability of wind velocity and direction at great heights. The formulas, diagrams and tables used for processing shipboard observations are presented and examples of computations are given. The exact step-by-step procedures are described. Orig. art. has: 5 figures, 14 formulas and 3 tables.

ASSOCIATION: DAL'NEVOSTOCHNY*Y NAUCHNO-ISSLEDOVATEL'SKIY GIDROMETEOROLOGICHESKIY INSTITUT (Far Eastern Hydrometeorological Scientific Research Institute)

SUBMITTED: 00 DATE ACQ: 20Mar64 ENCL: 00

SUB CODE: AS NO REF SOV: 003 OTHER: 000

Card 2/2

ACCESSION NR: AT4018151 S/2633/63/000/015/0083/0112

AUTHOR: Verle, Ye. K.; Zhabunina, V. P.

TITLE: Certain data on atmospheric turbulence in the upper troposphere and lower stratosphere

SOURCE: Vladivostok. Dal'nevostoch. n.-i. gidrometeor. institut. Trudy*, no. 15 1963, 83-112

TOPIC TAGS: meteorology, atmospheric turbulence, troposphere, upper troposphere, lower stratosphere, stratosphere, clouds, jet stream, atmospheric pressure field, tropopause

ABSTRACT: Special aircraft sounding with an IL-28 near Khabarovsk has provided data on the frequency and structure of turbulent zones at heights of 6-12 km and their relationship to upper level clouds, atmospheric thermodynamic processes, the tropopause, jet streams and the pressure field. The apparatus used, schematically shown in the Enclosure, is describ-d briefly. During vertical sounding at the indicated heights 49% of all flights were without turbulence, 35% were with slight turbulence, 15% with moderate turbulence and 3% with moderate to strong turbulence. During horizontal sounding no turbulence was observed 56% of the time, slight turbulence 37% of the time and moderate turbulence 7% of the time.

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ACCESSION NR: AT4018151

Strong aircraft turbulence at heights of 6-12 km outside convective clouds is a rare phenomenon. The frequency of moderate turbulence increases sharply above 10 km. The most unfavorable flight level is 9-10 km, the region of the tropopause. Maximum turbulence is in spring; a second maximum is in autumn-winter. Turbulence at these heights is least frequent in summer, but there are individual cases of very strong turbulence associated with cumulonimbus and well-developed cumulus clouds. Annual variation of turbulence correlates well with the annual occurrence of jet streams. The mean horizontal extent of turbulent zones is about 80 km, but only 50 Km for zones of moderate turbulence and 85 km for zones of slight turbulence. Complex zones of alternating slight and moderate turbulence may extend up to 200-250 km. The latter cases are most common when the plane flies along the margin of cirrostratus clouds, sometimes passing through the clouds. Turbulent layers can be 300 to 4,000 meters or more thick, mean thickness is 1,500-2,500 meters. Turbulent layers exceeding 3,000-4,000 meters in thickness are associated with Ns-Cs warm front cloud systems; in such cases the turbulent zone can extend from the earth's surface to a height of 12 km. Moderate and strong turbulence is uncommon outside cloud zones; turbulence increases when thunderstorms or Cu and Ns clouds are developing. The probability of turbulence in the jet stream zone or at its margins is appreciably higher than outside this zone; moderate and strong turbulence is less on the northern periphery of a jet stream than on its southern periphery. Vertical distribution of turbulence is dependent on the position of the

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ACCESSION NR: AT4018151

tropopause. The minimum number of cases of turbulence was in the layer 500-1,000 meters above the tropopause; no cases were observed in the layer 1,500-2,000 m above the tropopause. Maximum frequency is in the layer 1,000-1,500 meters below the tropopause. Turbulence correlates well with vertical temperature gradients, wind velocities, Richardson numbers and the form of the high-level pressure field. Orig. art. has: 4 formulas, 7 figures and 25 tables.

ASSOCIATION: Dal'nevostochny*y n.-i. gidrometeorologicheskiy institut, Vladivostok (Far Eastern Hydrometeorological Institute)

SUBMITTED: 00	DATE ACQ: 20Mar64	ENCL: 01
SUB CODE: AS	NO REF SOV: 010	OTHER: 000

Card 3/~~4~~3

S/2633/63/000/015/0056/0059

ACCESSION NR: AT4018149

AUTHOR: Verle, Ye. K.

TITLE: Verifiability of forecasts of bumpy weather for airplanes

SOURCE: Vladivostok. Dal'nevostoch. n.-i. gidrometeor. institut. Trudy*, no. 15, 1963, 56-59

TOPIC TAGS: weather forecasting, meteorology, flight weather forecasting

ABSTRACT: On the basis of 2329 forecasts made in Chita and Magdagachi during the years 1958-59, an analysis was made of the accuracy of flight weather forecasts of bumps of various intensities and of calm weather. The average accuracy of forecasts was about 80% for both calm and slightly bumpy weather conditions. The accuracy of forecasting medium or strong bumps was much lower. This is explained by the lack of a reliable method of forecasting bumpy weather, particularly in mountainous regions. Besides, weather stations for registration of temperature and wind velocities are scanty in these regions. The weather forecasting scale employed used five points; no bumps, weak bumps, medium bumps, and very strong bumps. Strong bumps were registered in only 2%

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ACCESSION NR: AT4018149

of all cases; medium and strong bumps in 10—30%. The available methods may be used for distances up to 50 km. Orig. art. has: 4 tables.

ASSOCIATION: Dal'nevostochny*y n.-i. gidrometeorologicheskiy institut, Vladivostok (Far Eastern Scientific Research Institute for Hydrometeorology)

SUBMITTED: 00	DATE ACQ: 20Mar64	ENCL: 00
SUB CODE: AS	NO REF SOV: 001	OTHER: 000

Card 2/2

VERLE, Ye.K.

Features of the yearly march of turbulence characteristics over Vladivostok. Trudy Dal'nevost. NIGMI no.3:47-63 '58. (MIRA 11:12)

(Vladivostok--Atmospheric turbulence)

VERLE, Ye.K.

Accuracy of determining mean velocities of wind in the free atmosphere. Trudy Dal'nevost. NIGMI no.3:64-67 '58.
(MIRA 11:12)

(Winds)

VERLE, Ye.K.; SVINUKHOV, G.V.

Radiation balance in the area of the Maritime Territory. Trudy Dal'nevost.NIGMI no.6:30-43 '58. (MIRA 12:1)
(Maritime Territory--Solar radiation--Observations)

VERLE, Ye.K.; ZHABUNINA, V.P.

Time variation of wind in the upper troposphere and lower stratosphere. Trudy Dal'nevost. NIGMI no. 19:3-60 '65
(MIRA 19:1)

Time variation of temperature and pressure in the atmosphere. Ibid.:61-89

VERIE, Ye.K.

Contribution of diurnal variation to temperature variation with time. Trudy Dal'nevost. NIGMI no. 19:90-98 '65 (MIRA 19:1)

VERLEV, Ivan, inzh.

Improving the technique of furrow irrigation. Gidr. i mel. 12 no.4:
55-58 Ap '60.
(MIRA 13:9)

1. Sofiyskiy nauchno-issledovatel'skiy institut gidrotekhniki i
melioratsii.
(Bulgaria--Irrigation research)

SOLOMENKO, F., inzh.-ekonomist; TOPCHIY, F.; VERLIN, A.; KHALIMOV, N.

Our readers' suggestions. Fin.SSSR 21 no.6:77-78 Je '60.
(MIRA 13:6)

1. Starshiy kreditnyy inspektor Kabardino-Balkarskoy kontory Stroybanka (for Topchiy). 2. Zaveduyushchiy Ertil'skim rayfinotdelom Voronezhskoy oblasti (for Verlin). 3. Zaveduyushchiy Charodinskim rayfinotdelom Dagestanskoy ASSR (for Khalimov).
(Finance)

VERLINDE, J.D.

Viral enteropathies. Stud. cercet. inframicrobiol. 13 no.5:505-511 '62.

1. Laboratorul de microbiologie, Universitatea de Stat si Institutul de medicina preventiva, Leiden, Olanda.

(ENTEROVIRUS INFECTIONS) (ECHO VIRUSES)

DAVIDENKOVA, Ye.F.; SHTIL'BANS, I.I.; GODINOVA, A.M.; SAVEL'YEVA-VASIL'YEVA, Ye.A.; VERLINSKAYA, D.K.

Role of maternal pathology in Down's disease. Zhur. nevr. i psikh. 63 no.7:1052-1057 '63. (MIRA 17:7)

1. Laboratoriya meditsinskoy genetiki (zav. - prof. Ye.F. Davidenkova) Instituta onkologii AMN SSSR, Leningrad.

VERLINSKAYA, D.K.; PONOMARENKO, A.M.

Shereshevsky-Turner syndrome as a chromosomal disease. Akush. i gin. 40 no.5:146-147 S-O '64. (MIRA 18:5)

1. Laboratoriya meditsinskoy genetiki (zav. - prof. Ye.F. Davidenkova) Instituta onkologii AMN SSSR, Leningrad.

VERLINSKIY, Ye.M.

Working together in friendship with Chinese communication workers. Avtom., telem. i sviaz' 4 no.1:28 Ja '60. (MIRA 13:4)

1. Nachal'nik otdela svyazi Zabaykal'skoy dorogi. (Railroads--Communication systems)

VERLINSKIY, Ye.M.

Use of a high-frequency channel for an administration railroad communication system. Avtom., telem. i sviaz' 5 no.3:34-35 Mr '61. (MIRA 14:9)

1. Nachal'nik otdela svyazi sluzhby signalizatsii i svyazi Zabaykal'skoy dorogi.

(Railroads--Communication systems)

VERLINSKIY, Ye.M.

The requirements of new standards should be taken into account. Avtom., telem. i sviaz' 5 no.12:34 D '61. (MIRA 14:12)

1. Nachal'nik otdela svyazi sluzhby signalizatsii i svyazi Zabaykal'skoy dorogi.
(Railroads--Communication systems)

Card 1/2

3

[illegible]

GALDINA, N.M., kand. tekhn. nauk; RUBLEVSKIY, I.P., inzh.; VERLOTSKIY, A.A., inzh.; ROGOVOY, M.I.

Directional solidification as a method of improving the properties of fused and cast refractories. Stek. i ker. 22 no.12:16-19 D '65. (MIRA 18:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut stekla (for Galdina, Rublevskiy, Verlotskiy). 2. Moskovskiy inzhenerno-stroitel'nyy institut imeni Kuybysheva (for Rogovoy).

VERLOTSKIY, A.Ye., prof.; GORNOSTAYEVA, I.V., kand.med.nauk

Anesthesia of the mandibular nerve in children. Trudy TSIU 64:176-182 '63. (MIRA 17:5)

VERLOTSKIY, A. YE.

1963/3

c' 1962

BIOLOGY -
stomatology

seeILC

VERMA, (G.M.)

Review of Applied Mycology
Vol. 33 Mar. 1954

②

Narayanamurti (D.) & Verma (G. M.). Studien zur Biochemie holzzerstörender Pilze.—Vierte Mitteilung. Zersetzung von Holz und anderen Stoffen. [Studies on the biochemistry of wood-destroying fungi.—Fourth note. Disorganization of wood and other substances.]—*Holz a. Roh- u. Werkst.*, 11, 6, pp. 226-227, 1 graph, 1953.

In pure culture studies at the Forest Research Institute, Dehra Dun, India, *Polystictus sanguineus* [*R.A.M.*, 33, p. 127] on peptone or on the sapwood of *Dalbergia sissoo* in the form of sawdust, shavings, and sticks, consumed more glucose than peptone. Pure cellulose was not disorganized. The growth of the fungus ceased after four to 4½ months. The status of *P. sanguineus* as a white rot fungus was demonstrated by its preference for lignin as compared with cellulose, the ratio of cellulose to lignin increasing with the progress of decay, and reaching about 50 per cent. more than the initial ratio after four months on sawdust and shavings and 18 per cent. on sticks.

VARMA, J.P.; VERMA, G.S.

The role of calcium in multiplication of tobacco mosaic virus. Acta virol. 7 no.2:182-188 Mr '63.

1. Department of Botany, Lucknow University, Lucknow, India.
(TOBACCO MOSAIC VIRUS) (CALCIUM) (PLANTS)

VERMA, G. S.; VARMA, J. P.

Effect of potassium deficiency on tobacco mosaic virus multiplication in Turkish tobacco (Nicotiana tabacum). Acta virol. (Praha)[Eng]6 no.2:181-185 Mr '62.

1. Department of Botany, Lucknow University, Lucknow, India.

(VIRUSES) (POTASSIUM)

OBENAUS, F., prof., dr. inz.; VERMA, N.P., dr. inz.

Dependence of the flashover positive surge voltage on the flashover gap between the point and the plate with an inserted screen. El tech obzor 52 no.8:393-399 Ag '63.

1. Ustav techniky vysokych napeti, Technicka universita, Drazdany.

SINHA, S. B.; VERMA, P.D.S.; SEN, B. R.

Stress distribution in the triaxial compression test. Bul Ac Pol tech 9 no.3:169-173 '61.

1. Indian Institute of Technology, Kharagpur, India. Presented by W. Nowacki.

VERMA, P.D.S.

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